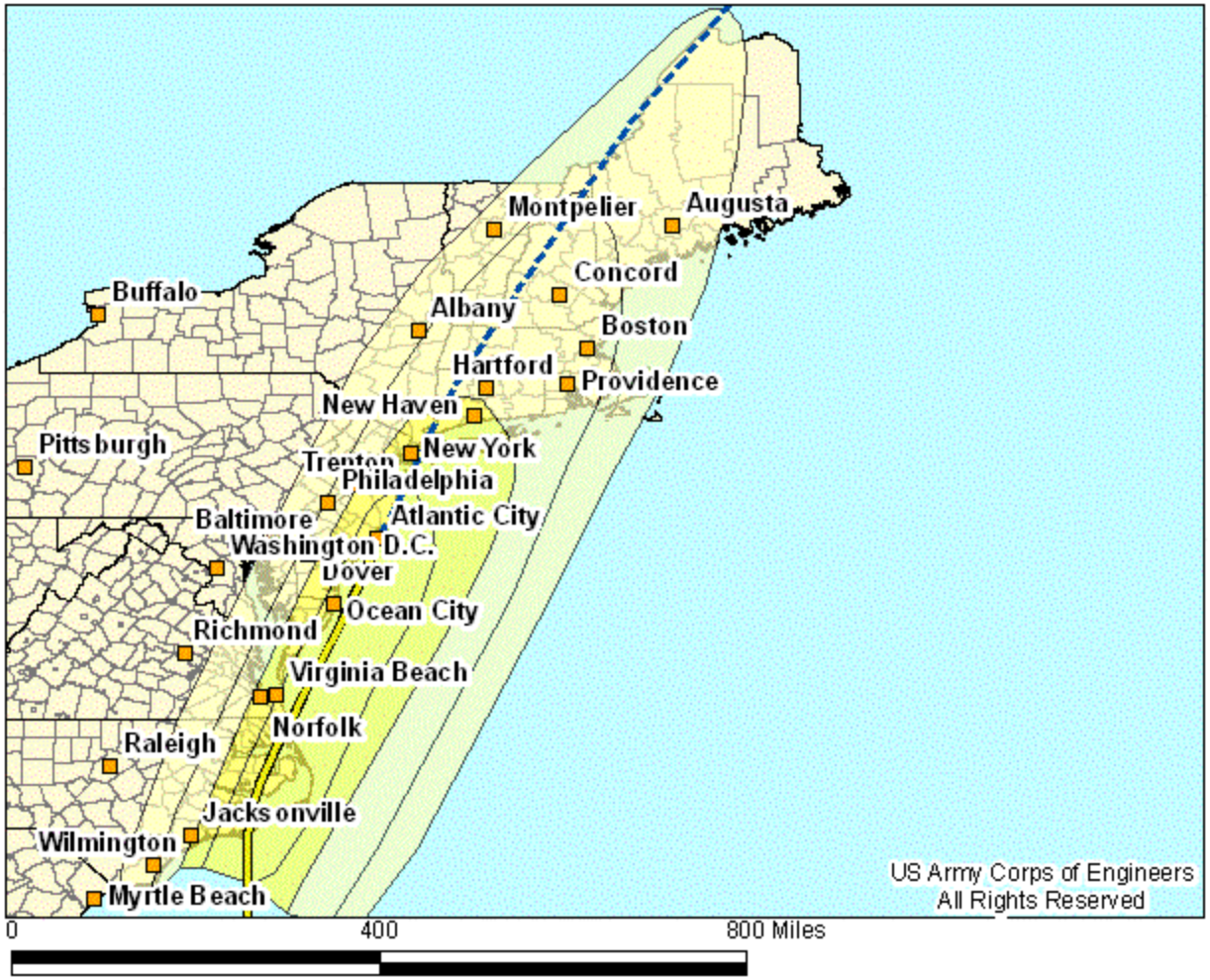
Hurricane Irene Projected Damage Areas

Landfall Expected In About 5 Hours

US Army Corps of Engineers

For Planning Purposes Only!



Post Landfall Projected Damage Areas

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Forecast Track

Historic Track

Projected Damage Areas

- CAT 0-type damage
- CAT 1-type damage
- CAT 2-type damage
- CAT 3-type damage
- CAT 4-type damage
- CAT 5-type damage

Information provided on this page displays a projected or actual Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast and extrapolated by LRL staff to represent a landfall condition that has either occurred or may occur in the near future.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Projected Damage Areas

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

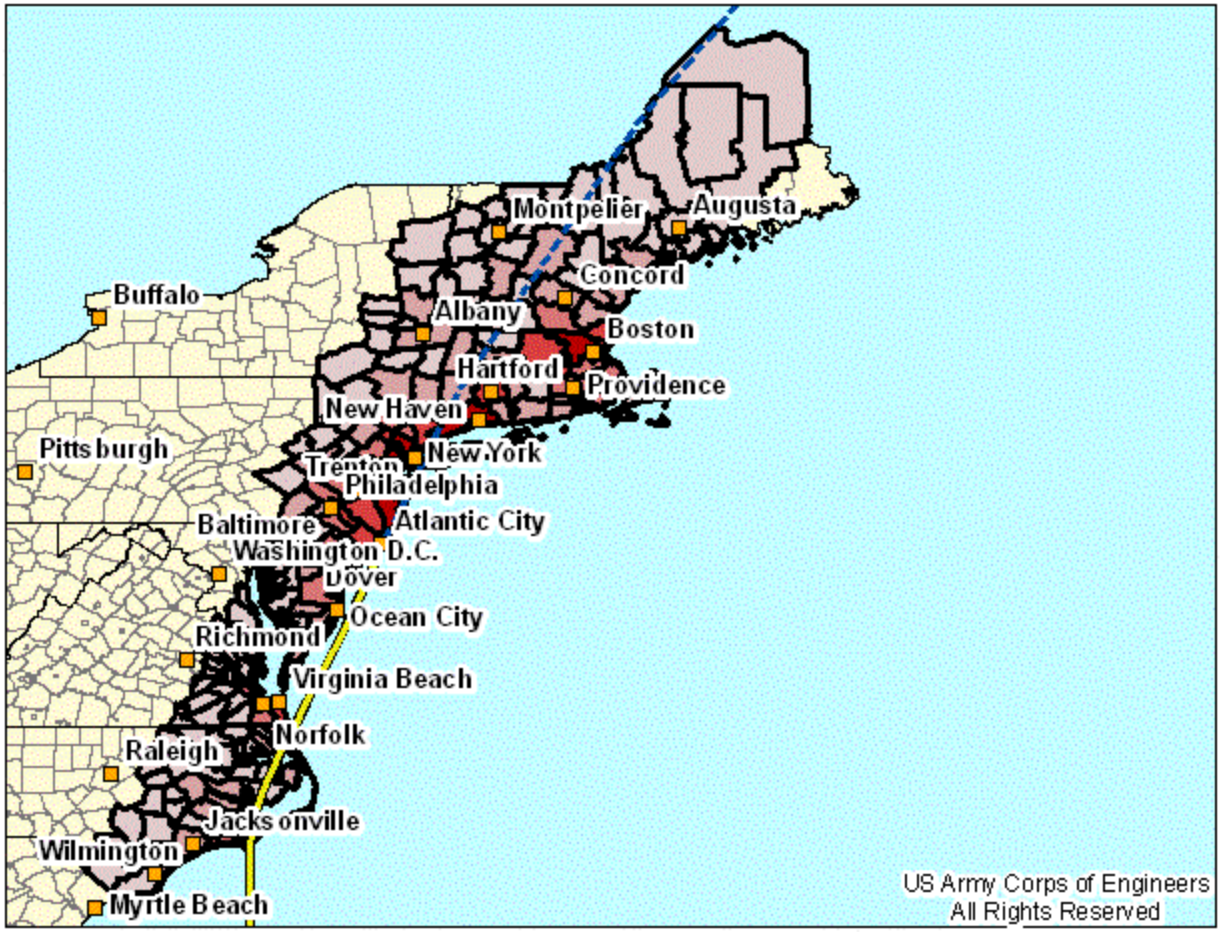
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

New York - 13,792,000 Yards
New Jersey - 13,195,000 Yards
Massachusetts - 4,737,000 Yards
Connecticut - 4,091,000 Yards
Virginia - 3,045,000 Yards
Pennsylvania - 2,461,000 Yards
North Carolina - 2,260,000 Yards
New Hampshire - 1,271,000 Yards
Delaware - 897,000 Yards
Rhode Island - 815,000 Yards
Maryland - 699,000 Yards
Maine - 544,000 Yards
Vermont - 470,000 Yards

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Forecast Track

Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Connecticut		Fairfield County	1,327,000
		Hartford County	671,000
		Litchfield County	223,000
		Middlesex County	175,000
		New Haven County	1,265,000
		New London County	214,000
		Tolland County	116,000
		Windham County	100,000
Connecticut	4,091,000		
Delaware		Kent County	149,000
		New Castle County	269,000
		Sussex County	479,000
Delaware	897,000		
Maine		Androscoggin County	47,000
		Aroostook County	2,000
		Cumberland County	124,000
		Franklin County	15,000
		Kennebec County	57,000
		Knox County	20,000
		Lincoln County	18,000
		Oxford County	34,000
		Penobscot County	17,000
		Piscataquis County	9,000
		Sagadahoc County	18,000
		Somerset County	25,000
		Waldo County	15,000
		York County	143,000
Maine	544,000		

State	Yards per State	County	Yards per County
Maryland		Calvert County	33,000
		Caroline County	25,000
		Cecil County	44,000
		Dorchester County	30,000
		Harford County	9,000
		Kent County	11,000
		Queen Anne's County	25,000
		Somerset County	51,000
		St. Mary's County	67,000
		Talbot County	24,000
		Wicomico County	188,000
		Worcester County	192,000
Maryland	699,000		
Massachusetts		Barnstable County	100,000
		Berkshire County	124,000
		Bristol County	395,000
		Dukes County	9,000
		Essex County	546,000
		Franklin County	69,000
		Hampden County	357,000
		Hampshire County	116,000
		Middlesex County	1,089,000
		Nantucket County	< 1,000
		Norfolk County	494,000
		Plymouth County	326,000
		Suffolk County	441,000
		Worcester County	671,000
Massachusetts	4,737,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
New Hampshire		Belknap County	65,000
		Carroll County	78,000
		Cheshire County	80,000
		Coos County	58,000
		Grafton County	135,000
		Hillsborough County	311,000
		Merrimack County	148,000
		Rockingham County	248,000
		Strafford County	102,000
		Sullivan County	46,000
New Hampshire	1,271,000		
New Jersey		Atlantic County	813,000
		Bergen County	1,274,000
		Burlington County	658,000
		Camden County	542,000
		Cape May County	431,000
		Cumberland County	277,000
		Essex County	1,088,000
		Gloucester County	348,000
		Hudson County	703,000
		Hunterdon County	102,000
		Mercer County	433,000
		Middlesex County	1,213,000
		Monmouth County	1,102,000
		Morris County	298,000
		Ocean County	2,082,000
		Passaic County	561,000
		Salem County	59,000
		Somerset County	264,000
		Sussex County	122,000
		Union County	767,000
		Warren County	58,000
New Jersey	13,195,000		
New York		Albany County	145,000
		Bronx County	571,000
		Columbia County	64,000
		Delaware County	8,000
		Dutchess County	223,000
		Essex County	3,000
		Fulton County	2,000
		Greene County	38,000
		Kings County	1,255,000
		Montgomery County	14,000
		Nassau County	2,568,000
		New York County	1,103,000
		Orange County	260,000
		Putnam County	133,000
		Queens County	2,480,000
		Rensselaer County	102,000
		Richmond County	583,000
		Rockland County	355,000
		Saratoga County	112,000
		Schenectady County	75,000
		Schoharie County	11,000
		Suffolk County	2,714,000
		Sullivan County	41,000
		Ulster County	162,000
		Warren County	33,000

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
New York		Washington County	36,000
(continued)		Westchester County	701,000
New York	13,792,000		
North Carolina		Beaufort County	159,000
		Bertie County	36,000
		Bladen County	2,000
		Brunswick County	77,000
		Camden County	33,000
		Carteret County	258,000
		Chowan County	34,000
		Columbus County	5,000
		Craven County	244,000
		Currituck County	82,000
		Dare County	132,000
		Duplin County	34,000
		Edgecombe County	30,000
		Gates County	21,000
		Greene County	10,000
		Halifax County	10,000
		Hertford County	25,000
		Hyde County	37,000
		Jones County	23,000
		Lenoir County	35,000
		Martin County	29,000
		Nash County	2,000
		New Hanover County	198,000
		Northampton County	11,000
		Onslow County	216,000
		Pamlico County	50,000
		Pasquotank County	125,000

State	Yards per State	County	Yards per County
North Carolina		Pender County	54,000
(continued)		Perquimans County	36,000
		Pitt County	126,000
		Sampson County	3,000
		Tyrrell County	25,000
		Washington County	41,000
		Wayne County	47,000
		Wilson County	10,000
North Carolina	2,260,000		
Pennsylvania		Berks County	17,000
		Bucks County	432,000
		Carbon County	< 1,000
		Chester County	185,000
		Delaware County	229,000
		Lehigh County	122,000
		Monroe County	50,000
		Montgomery County	396,000
		Northampton County	122,000
		Philadelphia County	878,000
		Pike County	30,000
		Wayne County	< 1,000
Pennsylvania	2,461,000		
Rhode Island		Bristol County	46,000
		Kent County	141,000
		Newport County	72,000
		Providence County	448,000
		Washington County	108,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Rhode Island	815,000		
(continued)			
Vermont		Addison County	18,000
		Bennington County	57,000
		Caledonia County	28,000
		Chittenden County	2,000
		Essex County	12,000
		Lamoille County	13,000
		Orange County	36,000
		Orleans County	22,000
		Rutland County	55,000
		Washington County	39,000
		Windham County	85,000
		Windsor County	103,000
Vermont	470,000		
Virginia		Accomack County	106,000
		Charles City County	4,000
		Chesapeake city	456,000
		Essex County	5,000
		Franklin city	6,000
		Gloucester County	44,000
		Greensville County	2,000
		Hampton city	215,000
		Isle of Wight County	42,000
		James City County	52,000
		King William County	4,000
		King and Queen County	4,000
		Lancaster County	12,000
		Mathews County	13,000
		Middlesex County	12,000

State	Yards per State	County	Yards per County
Virginia		New Kent County	7,000
(continued)		Newport News city	281,000
		Norfolk city	501,000
		Northampton County	29,000
		Northumberland County	13,000
		Poquoson city	14,000
		Portsmouth city	280,000
		Prince George County	5,000
		Richmond County	5,000
		Southampton County	13,000
		Suffolk city	98,000
		Surry County	7,000
		Sussex County	7,000
		Virginia Beach city	735,000
		Westmoreland County	6,000
		Williamsburg city	7,000
		York County	60,000
Virginia	3,045,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

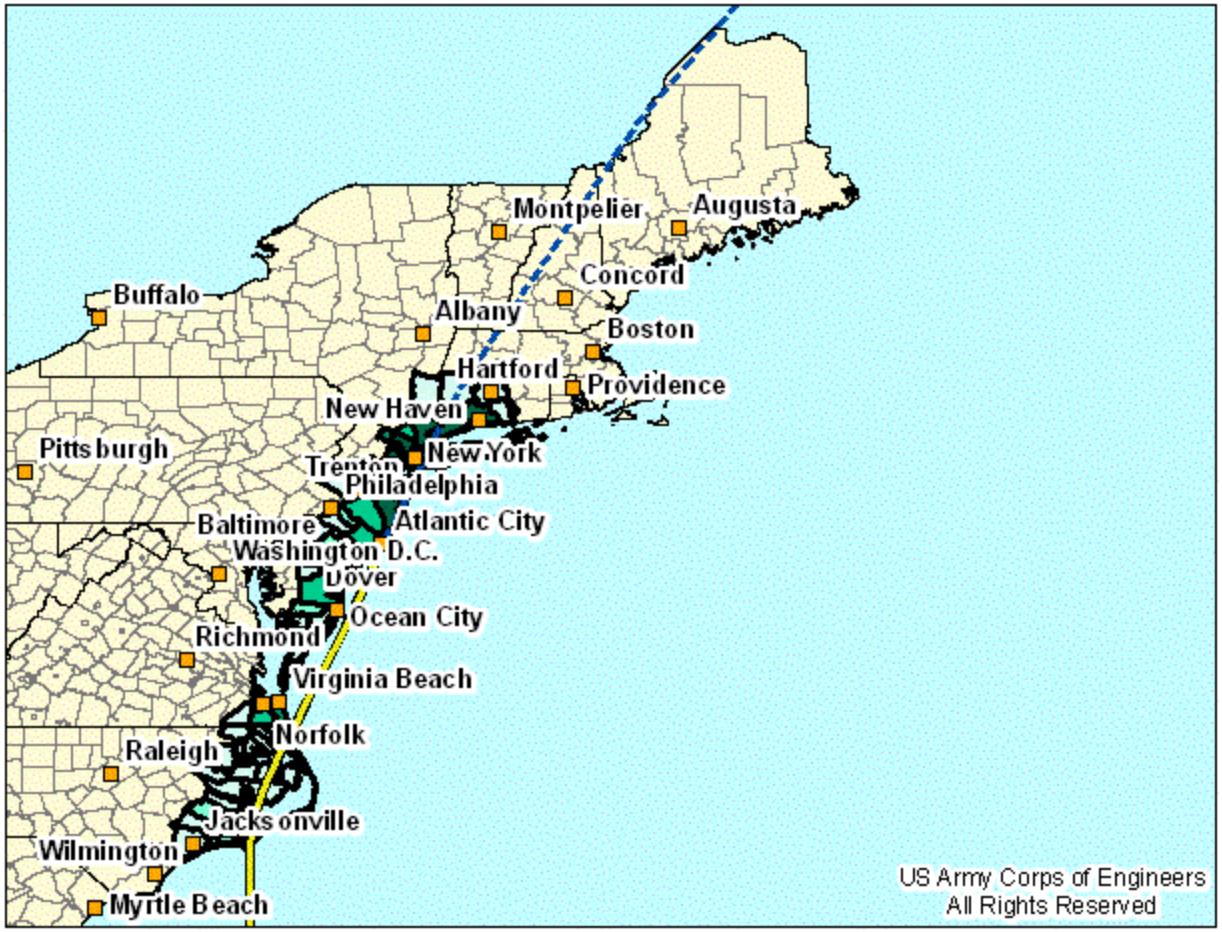
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Commodities Model

Landfall Expected In About **5** Hours

For Planning Purposes Only!



Post Landfall Water Model Results

Day One / Day Two / Day Three

New York – 200/400/792 Truckloads
New Jersey – 110/220/434 Truckloads
Connecticut – 32/65/130 Truckloads
Virginia – 22/43/86 Truckloads
North Carolina – 9/18/36 Truckloads
Maryland – 3/6/13 Truckloads
Delaware – 3/6/13 Truckloads
Pennsylvania – 1/1/1 Truckloads

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Forecast Track
Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC ***(0500 EDT 08/28/2011)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents daily needs with a ramp-up in the distribution system – three days for Points of Distribution (PODs) to be fully in place and operational. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Commodities Model	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Commodities Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Connecticut		Fairfield County	64
		Hartford County	2
		Litchfield County	4
		Middlesex County	1
		New Haven County	59
Connecticut	130		
Delaware		Kent County	1
		Sussex County	12
Delaware	13		
Maryland		Somerset County	2
		Wicomico County	7
		Worcester County	4
Maryland	13		
New Jersey		Atlantic County	20
		Bergen County	59
		Burlington County	18
		Camden County	8
		Cape May County	7
		Cumberland County	8
		Essex County	51
		Gloucester County	4
		Hudson County	44
		Mercer County	11
		Middlesex County	53
		Monmouth County	46
		Ocean County	41
		Passaic County	26
		Salem County	1

State	Truckloads per State	County	Truckloads per County
New Jersey		Somerset County	3
(continued)		Union County	34
New Jersey	434		
New York		Bronx County	98
		Dutchess County	1
		Kings County	149
		Nassau County	96
		New York County	104
		Putnam County	6
		Queens County	135
		Richmond County	35
		Rockland County	17
		Suffolk County	104
		Westchester County	47
New York	792		
North Carolina		Beaufort County	2
		Bertie County	1
		Camden County	1
		Carteret County	5
		Chowan County	2
		Craven County	6
		Currituck County	2
		Dare County	3
		Gates County	1
		Hyde County	1
		Jones County	1
		Martin County	1

Source: US Army Corps of Engineers, All Rights Reserved

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested daily needs based on full deployment of a commodities distribution system. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Commodities Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Commodities Model

Landfall Expected In About **5** Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
North Carolina		Onslow County	3
(continued)		Pamlico County	1
		Pasquotank County	3
		Perquimans County	1
		Tyrrell County	1
		Washington County	1
North Carolina	36		
Pennsylvania		Bucks County	1
Pennsylvania	1		
Virginia		Accomack County	3
		Chesapeake city	16
		Hampton city	5
		Norfolk city	18
		Northampton County	1
		Poquoson city	1
		Portsmouth city	10
		Suffolk city	1
		Virginia Beach city	31
Virginia	86		

Source: US Army Corps of Engineers, All Rights Reserved

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested daily needs based on full deployment of a commodities distribution system. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

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Hurricane Irene Commodities Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

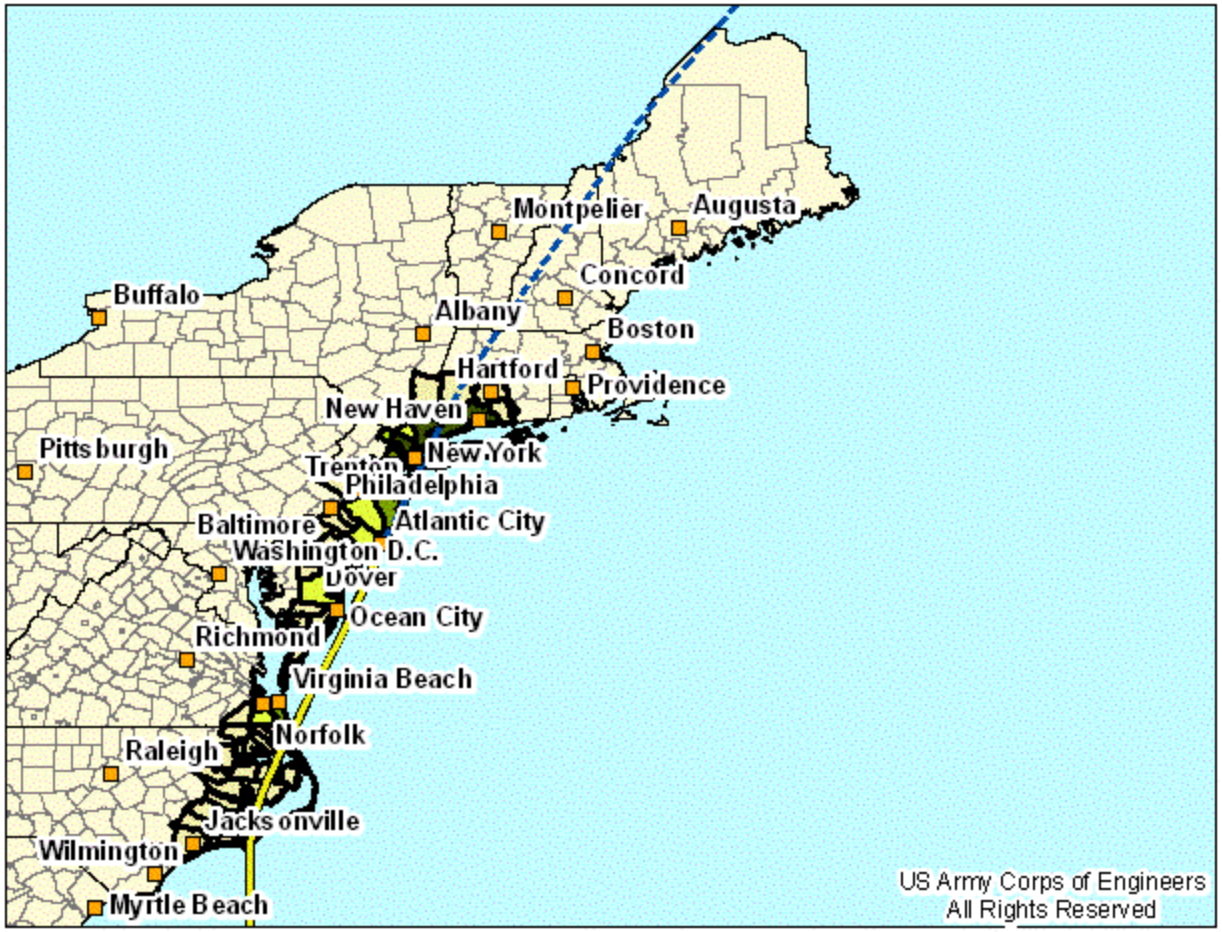
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Temporary Roofing Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Post Landfall Temporary Roofing Model Results

New York - 104,400
New Jersey - 77,700
Connecticut - 24,600
Virginia - 16,600
North Carolina - 6,900
Maryland - 2,800
Delaware - 2,500

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Forecast Track
Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast. Temporary roofing is based on 5% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Roofing Model	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 10 of 27

US Army Corps of Engineers

Hurricane Irene Temporary Roofing Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Connecticut		Fairfield County	12,200
		Hartford County	300
		Litchfield County	800
		Middlesex County	< 100
		New Haven County	11,300
Connecticut	24,600		
Delaware		Kent County	200
		Sussex County	2,300
Delaware	2,500		
Maryland		Somerset County	400
		Wicomico County	1,300
		Worcester County	1,100
Maryland	2,800		
New Jersey		Atlantic County	3,800
		Bergen County	11,500
		Burlington County	3,700
		Camden County	1,400
		Cape May County	1,600
		Cumberland County	1,600
		Essex County	7,000
		Gloucester County	800
		Hudson County	4,500
		Mercer County	2,100
		Middlesex County	9,700
		Monmouth County	9,200
		Ocean County	10,000
		Passaic County	4,300
		Salem County	< 100

State	House Units per State	County	House Units per County
New Jersey		Somerset County	500
(continued)		Union County	6,000
New Jersey	77,700		
New York		Bronx County	4,600
		Dutchess County	< 100
		Kings County	15,000
		Nassau County	19,900
		New York County	800
		Putnam County	1,200
		Queens County	20,900
		Richmond County	7,200
		Rockland County	2,800
		Suffolk County	21,700
		Westchester County	10,300
New York	104,400		
North Carolina		Beaufort County	400
		Bertie County	< 100
		Camden County	200
		Carteret County	1,400
		Chowan County	300
		Craven County	1,200
		Currituck County	500
		Dare County	800
		Gates County	< 100
		Hyde County	< 100
		Jones County	< 100
		Martin County	< 100

Temporary roofing is based on 5% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Roofing Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Temporary Roofing Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
North Carolina		Onslow County	400
(continued)		Pamlico County	300
		Pasquotank County	800
		Perquimans County	300
		Tyrrell County	< 100
		Washington County	300
North Carolina	6,900		
Pennsylvania		Bucks County	< 100
Pennsylvania			
Virginia		Accomack County	800
		Chesapeake city	3,400
		Hampton city	800
		Norfolk city	3,000
		Northampton County	300
		Poquoson city	< 100
		Portsmouth city	1,900
		Suffolk city	< 100
		Virginia Beach city	6,400
Virginia	16,600		

Temporary roofing is based on 5% in CAT 1.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Roofing Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

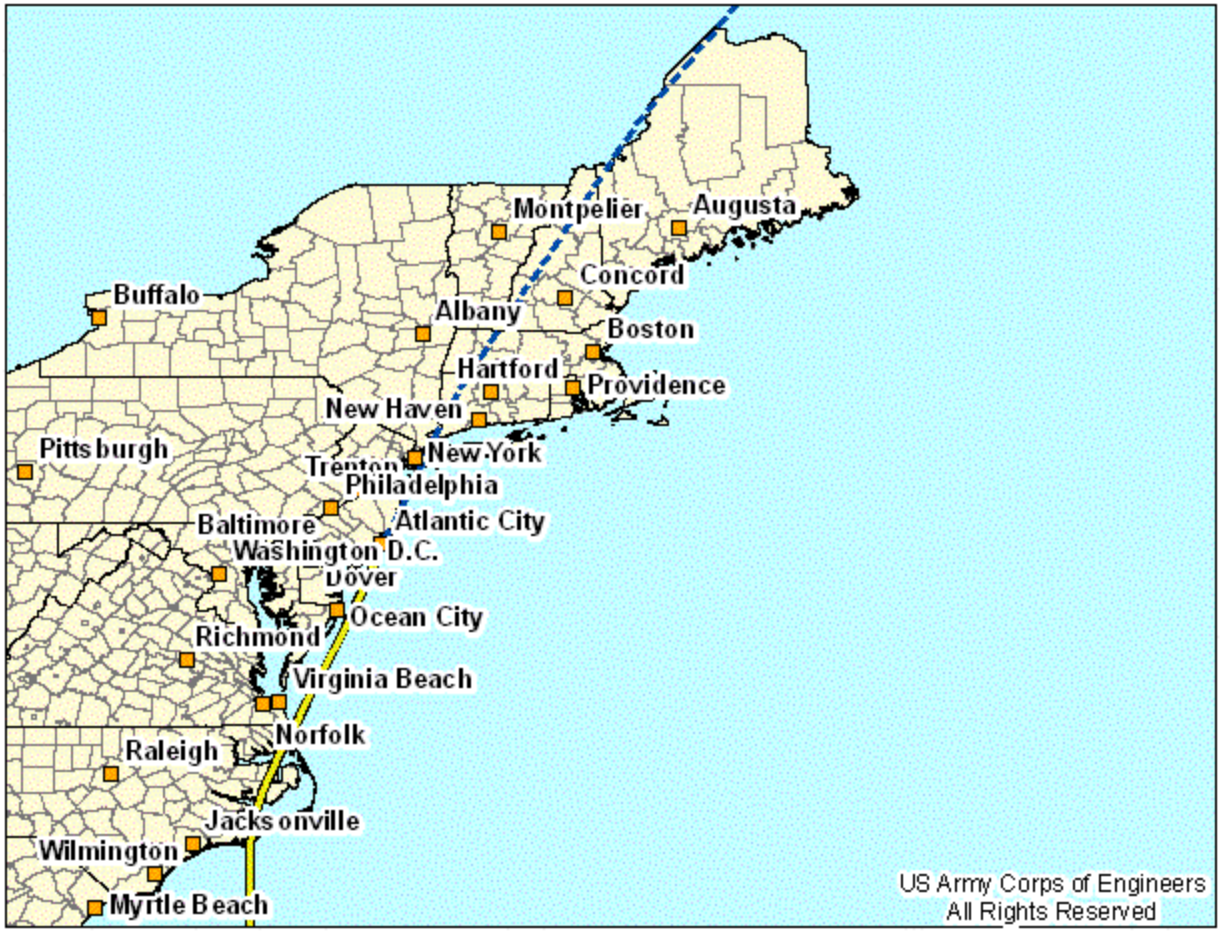
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Temporary Housing Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Post Landfall Temporary Housing Model Results

No significant Temporary Housing need expected

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Forecast Track

Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast. Temporary housing is based on nothing. The number indicated represents a possible need but not necessarily the scope of mission for USACE.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Housing Model	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Temporary Housing Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County

Temporary housing is based on nothing.
The number indicated represents a possible need but not necessarily the scope of mission for USACE.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Housing Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

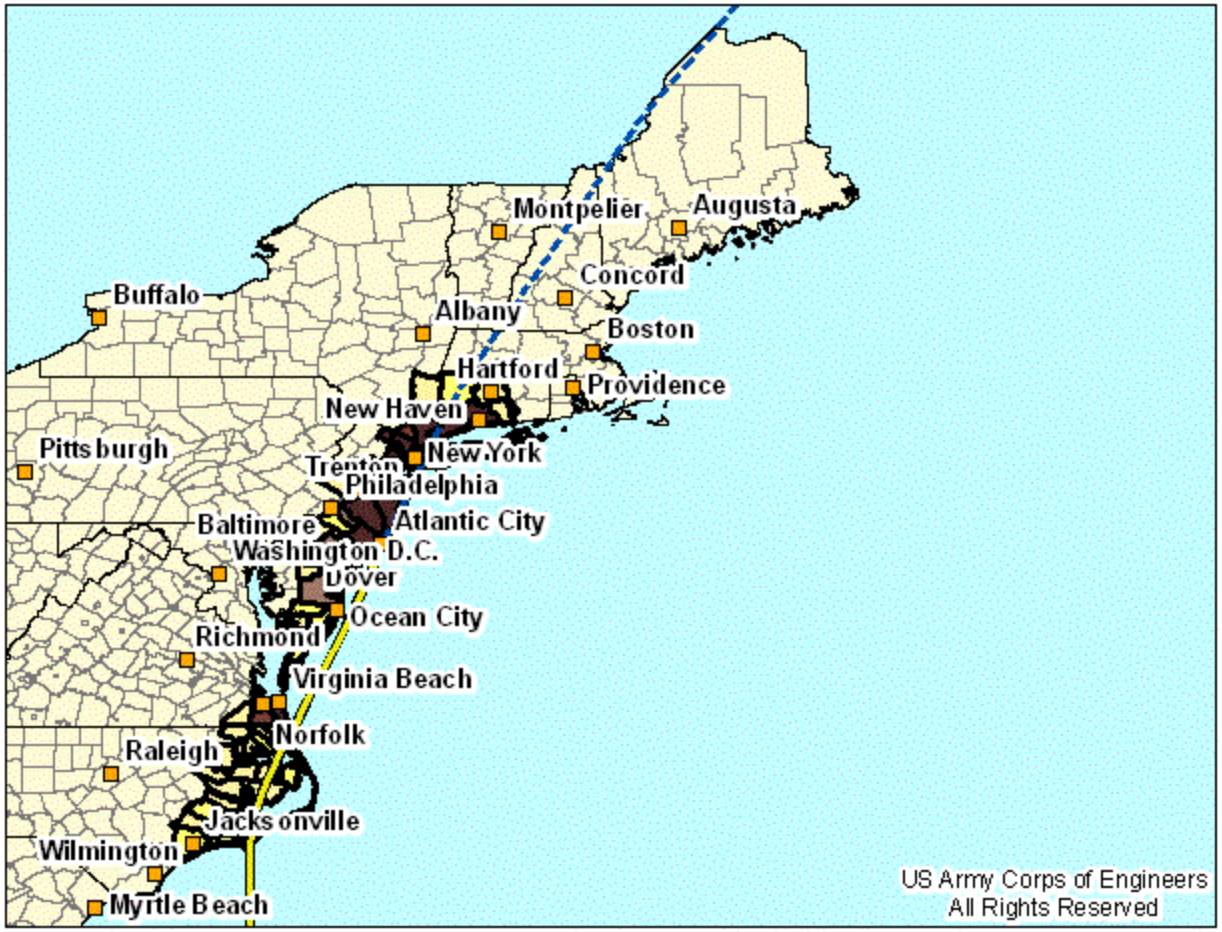
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Population Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Post Landfall Population Model Results

New York - 12,511,000
New Jersey - 6,063,000
Connecticut - 1,812,000
Virginia - 1,167,000
North Carolina - 407,000
Delaware - 177,000
Maryland - 160,000

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Forecast Track
Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2010 values).

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Population Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Population Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Connecticut		Fairfield County	908,000
		Hartford County	19,000
		Litchfield County	45,000
		Middlesex County	4,000
		New Haven County	836,000
Connecticut	1,812,000		
Delaware		Kent County	8,000
		Sussex County	169,000
Delaware	177,000		
Maryland		Somerset County	24,000
		Wicomico County	87,000
		Worcester County	49,000
Maryland	160,000		
New Jersey		Atlantic County	274,000
		Bergen County	829,000
		Burlington County	255,000
		Camden County	104,000
		Cape May County	97,000
		Cumberland County	114,000
		Essex County	726,000
		Gloucester County	51,000
		Hudson County	616,000
		Mercer County	147,000
		Middlesex County	749,000
		Monmouth County	647,000
		Ocean County	578,000
		Passaic County	369,000
		Salem County	5,000

State	Population per State	County	Population per County
New Jersey		Somerset County	30,000
(continued)		Union County	472,000
New Jersey	6,063,000		
New York		Bronx County	1,392,000
		Dutchess County	< 1,000
		Kings County	2,547,000
		Nassau County	1,367,000
		New York County	1,615,000
		Putnam County	76,000
		Queens County	2,355,000
		Richmond County	494,000
		Rockland County	236,000
		Suffolk County	1,483,000
		Westchester County	946,000
New York	12,511,000		
North Carolina		Beaufort County	25,000
		Bertie County	3,000
		Camden County	10,000
		Carteret County	66,000
		Chowan County	16,000
		Craven County	83,000
		Currituck County	25,000
		Dare County	35,000
		Gates County	4,000
		Hyde County	6,000
		Jones County	4,000
		Martin County	2,000

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Population Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Population Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
North Carolina		Onslow County	42,000
(continued)		Pamlico County	13,000
		Pasquotank County	42,000
		Perquimans County	13,000
		Tyrrell County	5,000
		Washington County	13,000
North Carolina	407,000		
Pennsylvania		Bucks County	< 1,000
Pennsylvania			
Virginia		Accomack County	38,000
		Chesapeake city	226,000
		Hampton city	59,000
		Norfolk city	256,000
		Northampton County	14,000
		Poquoson city	< 1,000
		Portsmouth city	131,000
		Suffolk city	7,000
		Virginia Beach city	436,000
Virginia	1,167,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Population Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

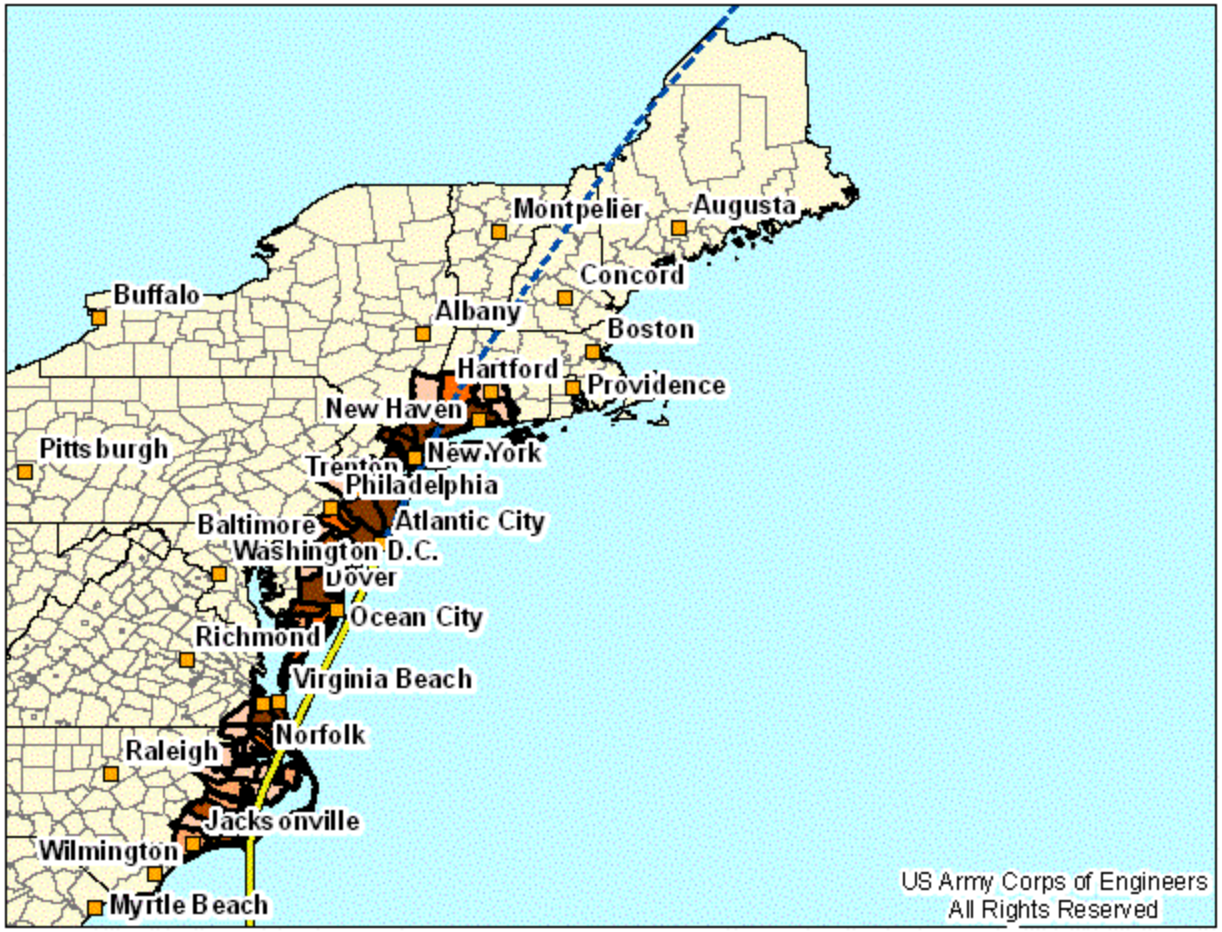
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Households Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Post Landfall Households Model Results

New York - 4,568,000
New Jersey - 2,222,000
Connecticut - 685,000
Virginia - 428,000
North Carolina - 158,000
Delaware - 71,000
Maryland - 62,000

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Forecast Track
Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2010 values).

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Households Model	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 18 of 27

US Army Corps of Engineers

Hurricane Irene Households Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Connecticut		Fairfield County	334,000
		Hartford County	7,000
		Litchfield County	18,000
		Middlesex County	2,000
		New Haven County	324,000
Connecticut	685,000		
Delaware		Kent County	3,000
		Sussex County	68,000
Delaware	71,000		
Maryland		Somerset County	8,000
		Wicomico County	33,000
		Worcester County	21,000
Maryland	62,000		
New Jersey		Atlantic County	103,000
		Bergen County	312,000
		Burlington County	91,000
		Camden County	36,000
		Cape May County	40,000
		Cumberland County	40,000
		Essex County	260,000
		Gloucester County	18,000
		Hudson County	233,000
		Mercer County	56,000
		Middlesex County	266,000
		Monmouth County	236,000
		Ocean County	227,000
		Passaic County	122,000
		Salem County	2,000
		Somerset County	11,000
(continued)		Union County	169,000
New Jersey	2,222,000		
New York		Bronx County	485,000
		Dutchess County	< 1,000
		Kings County	912,000
		Nassau County	459,000
		New York County	776,000
		Putnam County	26,000
		Queens County	827,000
		Richmond County	174,000
		Rockland County	76,000
		Suffolk County	487,000
		Westchester County	346,000
New York	4,568,000		
North Carolina		Beaufort County	11,000
		Bertie County	2,000
		Camden County	4,000
		Carteret County	28,000
		Chowan County	6,000
		Craven County	31,000
		Currituck County	10,000
		Dare County	15,000
		Gates County	2,000
		Hyde County	2,000
		Jones County	2,000
		Martin County	< 1,000

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Households Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Households Model

Landfall Expected In About 5 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
North Carolina		Onslow County	11,000
(continued)		Pamlico County	5,000
		Pasquotank County	16,000
		Perquimans County	6,000
		Tyrrell County	2,000
		Washington County	5,000
North Carolina	158,000		
Pennsylvania		Bucks County	< 1,000
Pennsylvania			
Virginia		Accomack County	16,000
		Chesapeake city	80,000
		Hampton city	22,000
		Norfolk city	94,000
		Northampton County	6,000
		Poquoson city	< 1,000
		Portsmouth city	48,000
		Suffolk city	3,000
		Virginia Beach city	159,000
Virginia	428,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

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or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Households Model

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

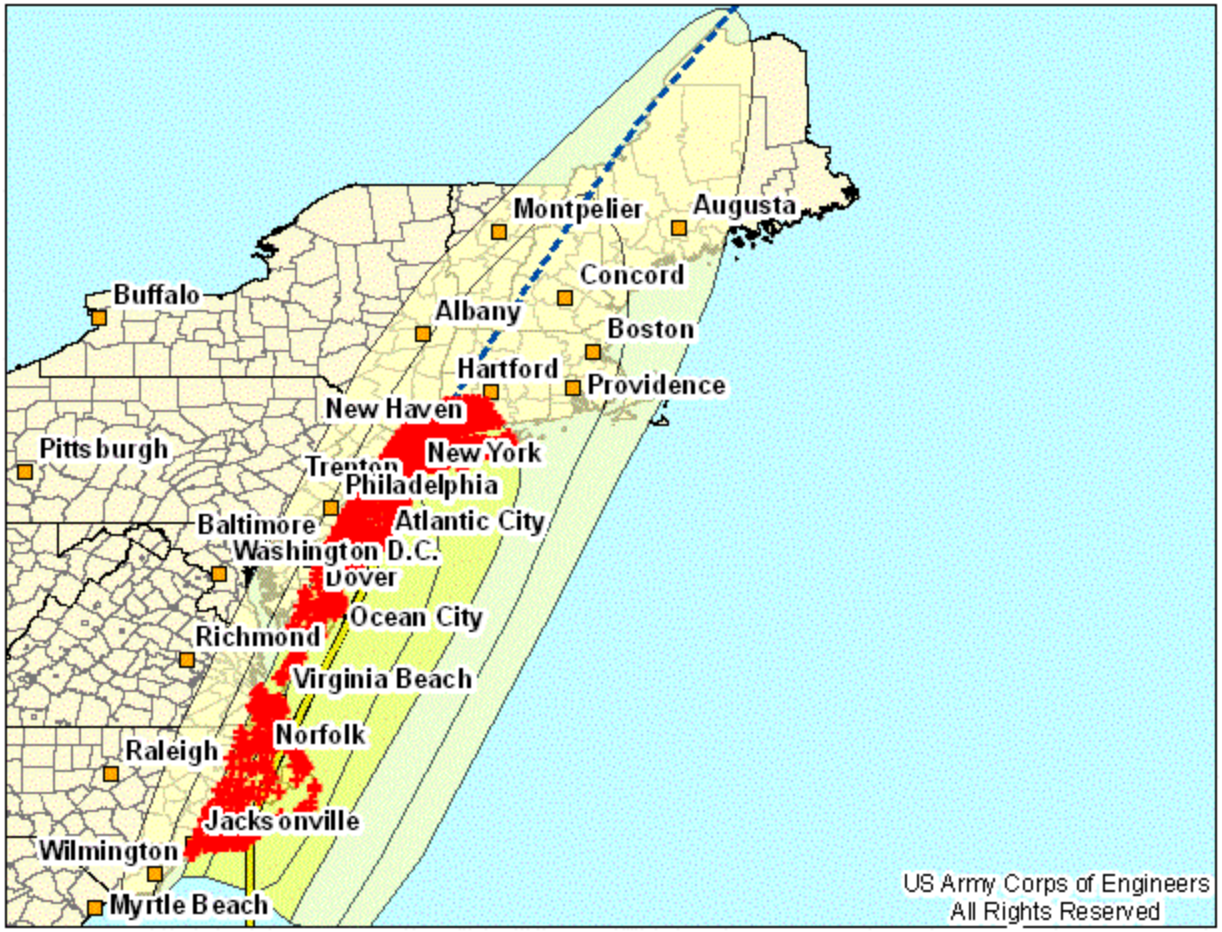
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Fire Stations

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Most Probable Landfall Fire Stations Inside Hurricane Force Winds

New Jersey - 799
New York - 787
Connecticut - 235
North Carolina - 170
Virginia - 94
Maryland - 34
Delaware - 28

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

+ Fire Stations
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast.
The number of fire stations included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

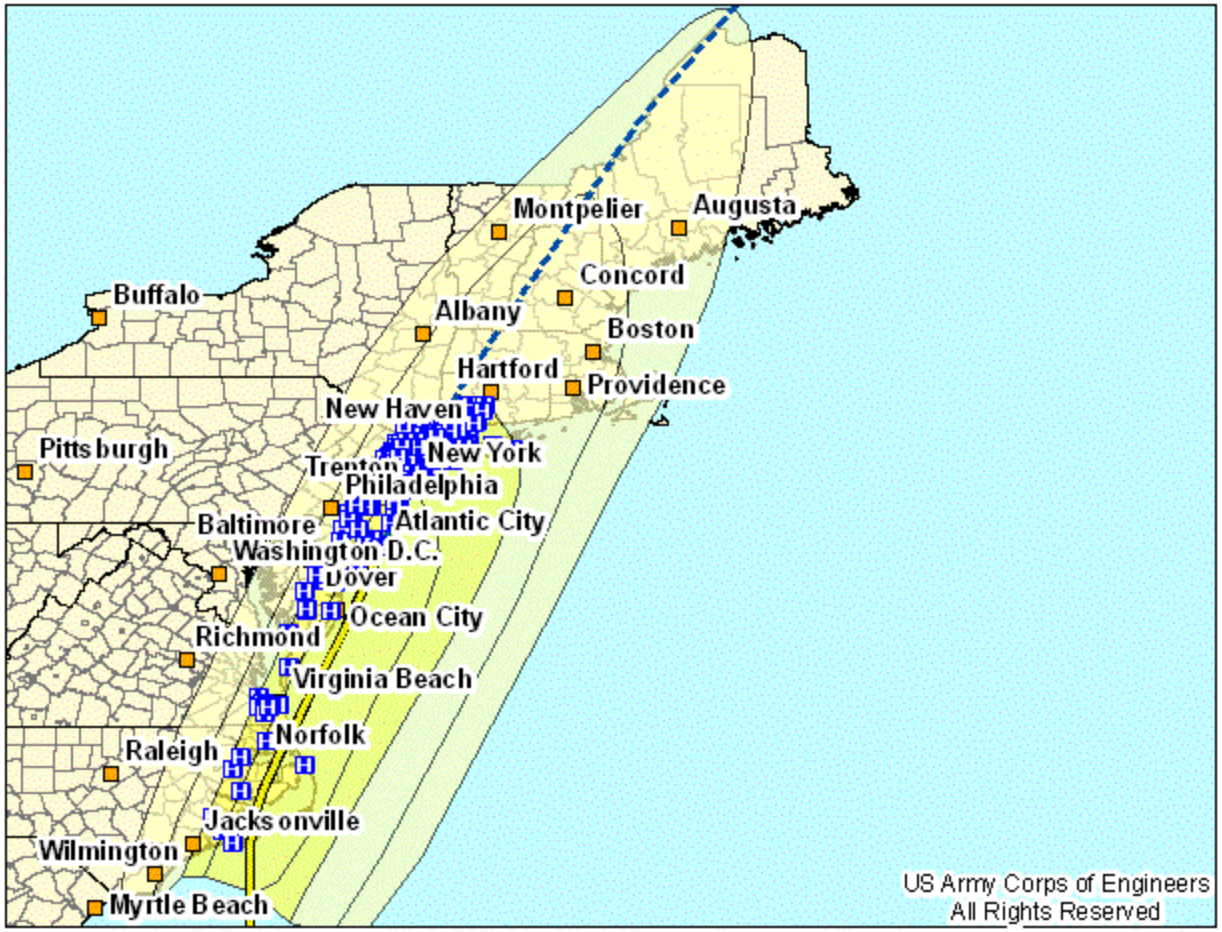
Hurricane Irene Fire Stations	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Hospitals

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Most Probable Landfall Hospitals Inside Hurricane Force Winds

New York - 107
New Jersey - 93
Connecticut - 19
Virginia - 14
North Carolina - 8
Maryland - 5
Delaware - 4

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Hospitals
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast.

The number of hospitals included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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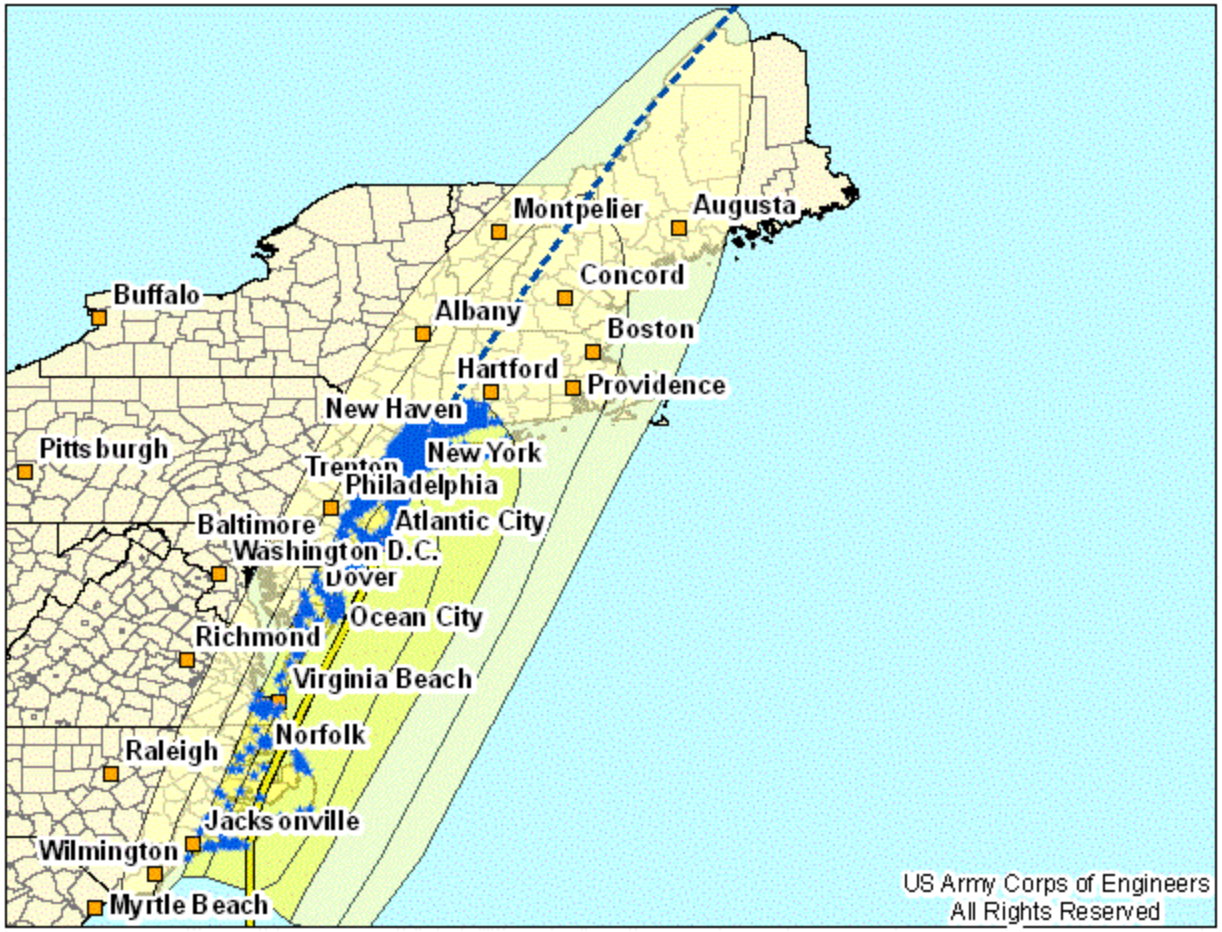
Hurricane Irene Hospitals	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Law Enforcement

Landfall Expected In About **5** Hours

For Planning Purposes Only!



Most Probable Landfall Law Enforcement Inside Hurricane Force Winds

New York - 395
New Jersey - 386
Connecticut - 77
North Carolina - 76
Virginia - 50
Maryland - 31
Delaware - 19

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Law Enforcement
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast.

The number of law enforcement included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

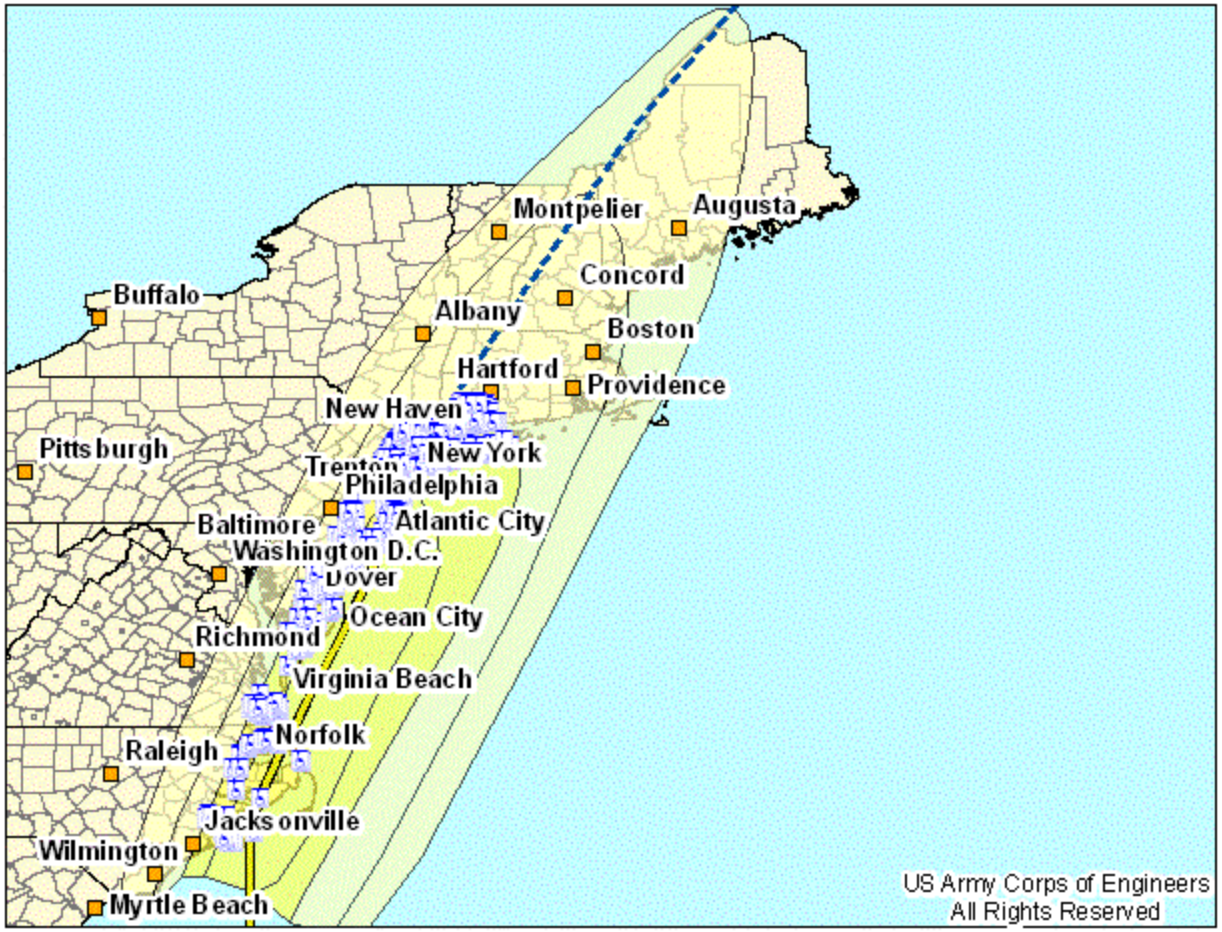
Hurricane Irene Law Enforcement	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Nursing Homes

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Most Probable Landfall Nursing Homes Inside Hurricane Force Winds

New York - 465
New Jersey - 339
Connecticut - 192
Virginia - 90
North Carolina - 44
Delaware - 20
Maryland - 19

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Nursing Homes
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast.

The number of nursing homes included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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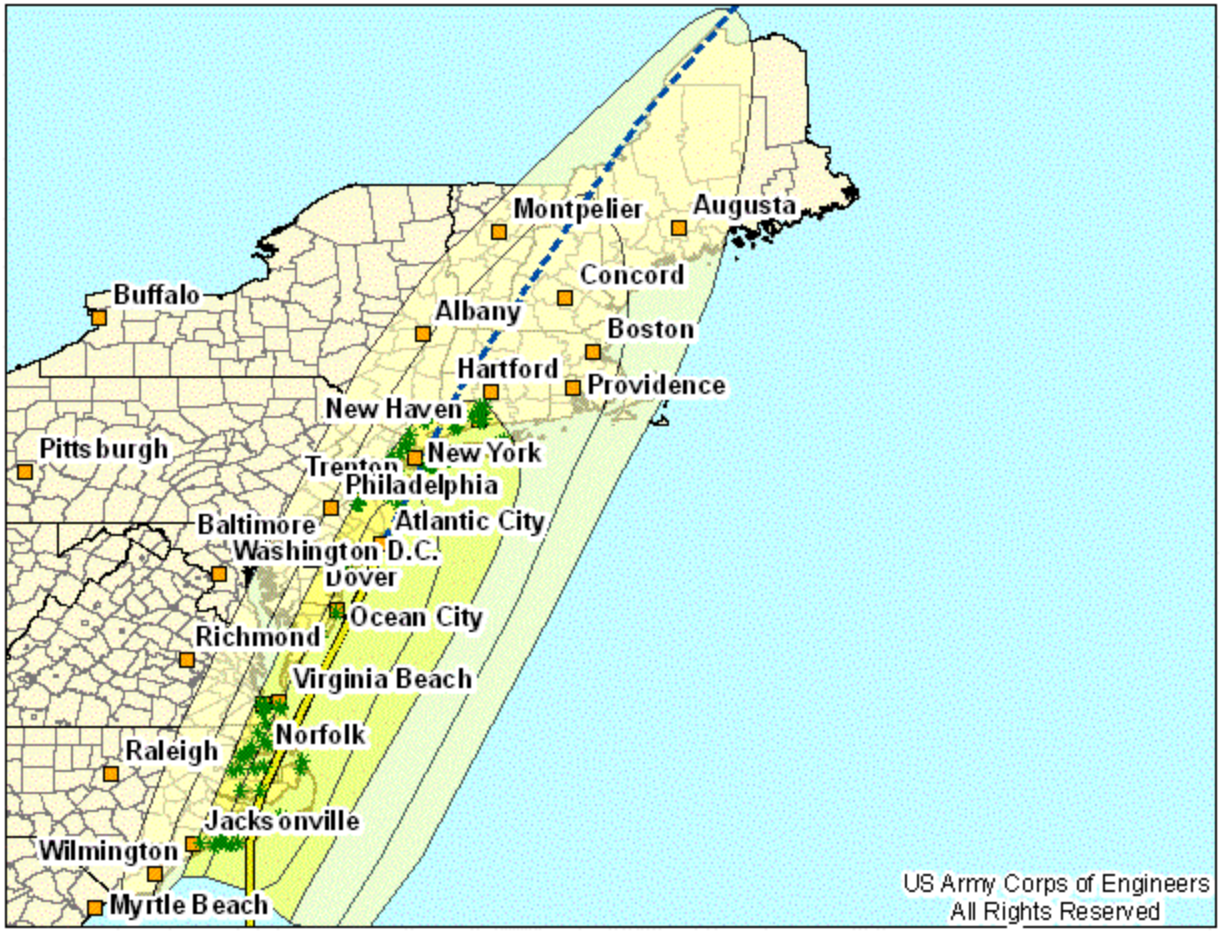
Hurricane Irene Nursing Homes	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 24 of 27

US Army Corps of Engineers

Hurricane Irene Potable Water

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Most Probable Landfall Potable Water Inside Hurricane Force Winds

North Carolina - 31
New Jersey - 17
New York - 16
Virginia - 11
Connecticut - 10
Maryland - 1

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Potable Water
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast.
The number of potable water included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Potable Water

Generated By:
Siemsen, LRL 0530 EDT 08/28/2011

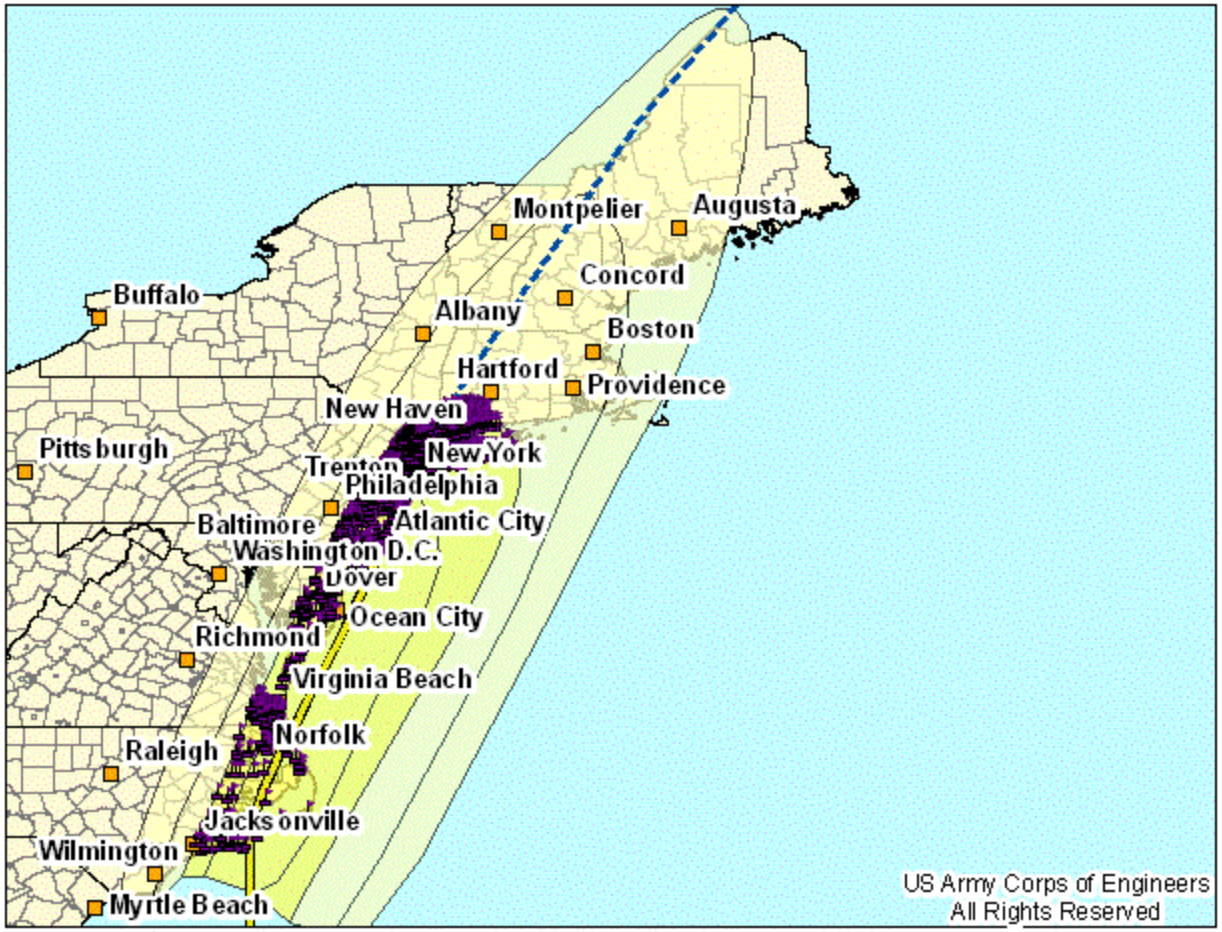
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Schools

Landfall Expected In About **5** Hours

For Planning Purposes Only!



Most Probable Landfall Schools Inside Hurricane Force Winds

New York - 2,521
New Jersey - 1,726
Connecticut - 535
Virginia - 285
North Carolina - 118
Delaware - 46
Maryland - 44

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

Schools
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast.

The number of schools included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

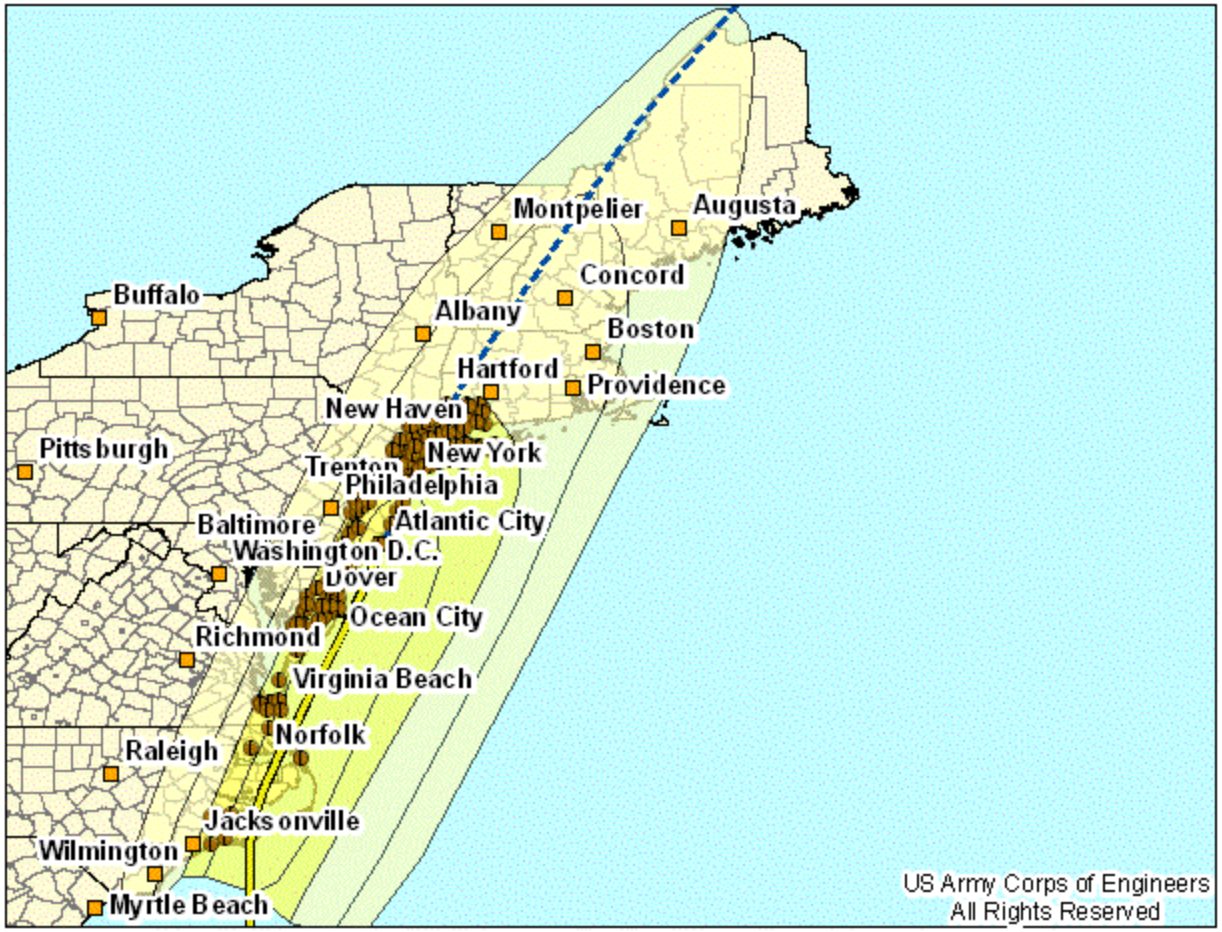
Hurricane Irene Schools	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 26 of 27

Hurricane Irene Sewage Treatment Plants

US Army Corps of Engineers

Landfall Expected In About 5 Hours

For Planning Purposes Only!



Most Probable Landfall Sewage Treatment Plants Inside Hurricane Force Winds

New York - 80
New Jersey - 74
Connecticut - 34
Maryland - 18
Virginia - 11
Delaware - 9
North Carolina - 8

Model results per County on following page

This model is based on a Category 1 storm making landfall off Atlantic City NJ.

- Sewage Treatment Plants
- Forecast Track
- Historic Track

Information provided on this page displays a Category 1 storm making landfall off Atlantic City NJ. These projections are based on information from the NHC (0500 EDT 08/28/2011) forecast.

The number of sewage treatment plants included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Sewage Treatment Plants	
Generated By: Siemsen, LRL 0530 EDT 08/28/2011	
Sources: HURREVAC LRL-DEBRIS	Page 27 of 27